

ABSTRACT

A computer system provides real-time compilation of a high-level language source program contemporaneously as the program is entered or edited at the console. The compiler normally performs lexical and syntactic analyses upon the source code stored in a memory buffer. A video terminal and an editor are provided for entry and editing of the source code. Actuating the terminal keyboard activates interrupt hardware to pass control of the central processor unit from the compiler to the editor. After the latter completes its entry or editing function corresponding to the struck key, control returns to the compiler for resumption of its compilation. The editor controls the advance of the compiler through the source code. The editor also controls the reinitialization of the compiler to cause the latter to recompile the source code, in the event that the editor performs operations which may result in changes to source code previously compiled.